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(Patent)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent Application of:

Ambrose Jacob Spinnler
BENADE et al.

Application No.: 10/590,733

Confirmation No.: 1188

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Art Unit: 1789

For: FOOD PRODUCT RICH IN FAT/OIL,
PROTEIN AND SWEETENING AGENT

Examiner: H. T. MEHTA

DECLARATION UNDER 37 C.F.R. § 1.132

Commissioner for Patents
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Sir:

I, Unnikrishnan Ramachandran Unnithan, hereby declare as follows:

I am one of the co-inventors of the invention as described and claimed in the above-identified patent application.

I have a Master's Degree in Chemical Engineering and have 27 years experience in the field of oils and fats.

The following comparative testing has been carried out by me or under my direct supervision. Test procedures and results are shown below.

Comparative Testing

I have reviewed U.S. Patent No. 3,851,070 to Sessoms et al. (hereinafter referred to as "Sessoms") and have concluded that Example 1 of Sessoms is the closest example to the present invention. As such, Example 1 of Sessoms was prepared with the following ingredients and their respective amounts:

Sessoms	%
Soy protein isolate	30
Sucrose	22
Soybean oil IV 108	40.65
Hardened soybean oil IV 8	2.5
Emulsifier	4
Citric acid	0.5
Flavoring (oil of tangerine)	0.35
Total	100

For comparison, an inventive example was prepared with the following ingredients and their respective amounts.

10/590,733	%
Carotino Fat CS35EV	64.5
Soy Flour (medium roast)	15.48
Sweetening agent (Purafax 78150)	19.35
Micronutrient Premix (iron fumarate, zinc amino acid chelate, selenium amino acid chelate)	0.33
Ascorbic acid	0.15
Flavoring (Banana)	0.19
Total	100.00

Then, nutritional values were determined for each example. The results are shown in the table below.

Nutritional Values per 100g of Spread	10/590,733	Sessoms
Fat	68.5 g	44.2 g
Protein	6.5 g	24.0 g
Carbohydrate	17.6 g	24.1 g
Iron	21.1 mg	0.0 mg
Zinc	20.7 mg	0.0 mg
Selenium	133.0 mg	0.0 mg
Ascorbic acid	150.0 mg	0.0 mg
Carotenes	32.3 mg	0.0 mg
Tocopherols	6.5 mg	59.8 mg
Tocopherols & Tocotrienols	25.8 mg	0.0 mg
Isoflavones	50.0 mg	29.2 mg

The spread of Sessoms is essentially just protein, fats, and carbohydrates without much micro-nutrients except for tocopherols from soybean oil. It emphasizes mainly on the use of specially hydrated and subsequently dried soya protein as the key inventive step. The spread of Sessoms provides basic nutrition but contains hydrogenated fat, which bear harmful trans-fatty acids. As such, the spread of Sessoms is not as healthy as the present invention.

The present invention is not affected whether hydrated soya protein is used or not. Specifically, the present invention provides basic nutrients as well as vitamins and minerals. The present invention is also healthier than the spread of Sessoms since it does not contain partially hydrogenated fats nor aflatoxins. The present invention has a long shelf life and is resistant to fungal growth. As such, the present invention is able to promote health, growth, and development of children in poor developing countries.

Further comparisons between Sessoms and the present invention are shown in the table below.

No.	Sessoms	10/590,733
1	Specially hydrated and subsequently dried soya protein (this is the most inventive step of this invention)	Ordinary soya flour with no hydration necessary. This is not the key component of this invention
2	Uses hydrogenated fat as hardstock	Zero hydrogenated fat and free from trans-fatty acids
3	Uses emulsifier	No emulsifier required
4	Basestock liquid triglyceride is soyabean oil as stated in Claim 10. No palm fat is mentioned	Red palm oil containing natural carotenoids, tocopherols and tocotrienols
5	Uses citric acid	No citric acid required
6	Uses coloring	No coloring required. Natural color is inherent in Red palm oil
7	No micronutrient required	Uses micronutrient mix as a source of minerals
8	No vitamins required	Uses vitamin or vitamin mix
9	Water content not part of claim	Water content of spread not more than 7 wt% in order to have long shelf-life and resistant to fungal growth
10	No micronutrient and vitamin required	Unique blend of water-soluble micronutrients and vitamin C into a fat-based spread
11	Formulation specifically target good mouth-feel with specially treated soy protein. "High nutrition" in this invention refers specifically to soy protein	Formulation specifically target micro-nutrient alleviation with specific content of fat, protein, carbohydrate, iron, zinc, selenium, ascorbic acid, carotenoids (pro-vitamin A), tocopherols and/or tocotrienols (vitamin E) and isoflavones listed

The undersigned declares further that all statements made herein of his own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S. Code 1001 and that such willful false statements may jeopardize the validity of this application or any patent issuing thereon.

By: 

Unnikrishnan Ramachandran Unnithan

Date: March 23, 2011